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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,496	CAMPBELL ET AL.	
	Examiner	Art Unit	
	CHUONG T. HO	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-26,29,32-36,38-41 and 43-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-26,29,32-36,38-41, 43-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 04/06/09 have been entered and made of record.

Response to Arguments

2. Applicant's arguments filed 04/06/09 have been fully considered but they are not persuasive.

In the page 2, lines 20-21, the applicant argues that the teachings of Cunetto ' 993 and Suzuki '621 would be about signaling, and not about traffic.

The examiner respectfully disagrees with the applicant's argument.

Cunetto ' 993 disclose about traffic streams (col. 7, lines 40-55, virtual path connection identifier (VPCI) information, VP identifier).

Suzuki '621 disclose about traffic stream (col. 4, lines 55-60, when a VC set cell is received, a new VCI is assigned).

For the reasons above, the examiner respectfully believes Claims 24, 29, 38-41,44 and 45 were rejected by the Examiner as being obvious over Cunetto in view of Suzuki should be sustained.

3. Claims 24-26, 29, 32-36, 38-41, 43-49 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 24, 29, 38-41, 44 - 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunetto et al. (Patent No.: US 7,307,993 B2) in view of Suzuki (Patent Number.: 5,463,621).

Regarding to claim 1, Cunetto ' 993 disclose a) a plurality of network elements (figure 2, end system 12, end system 26) (figure 3, SVC Customer 12, SVC Customer 26);

b) switching means (figure 3; edge switch 11, Core Switch 524, edge switch 25);

c) a traffic stream controller (figure 3 , SVC Controller 13, SVC Policy Servers 523, SVC Controller 22);

d) for each network element, there is provided a set of outgoing paths (figure 3, SETUP 51) from the network element (figure 3, SVC Customer 12) to the switching means (figure 3, edge switch 11, Core Switch 524, edge switch 25), one of the outgoing paths (figure 3, SETUP 51) carrying traffic streams (cells) for each of the network elements (figure 2, SVC Customer 12) , and an incoming path carrying traffic streams from the switching means (figure 3, Edge Switch 25) to the network element (figure 3, SVC Customer 26);

e) to route traffic streams (col. 7, lines 40-55, virtual path connection identifier (VPCI) information) from each of the network element (figure 3, SVC Customer 12) to the network element (figure 3, SVC Customer 26), the switching means merges (figure 6, merges UNI sig chan vp = I / vc = 5 from End Systems 1, 2, n) each outgoing paths (figure 6, paths 62(a), 62 (b), 62 (c)) carrying traffic streams for the other network element (figure 6, End System 2,…End System n) onto the incoming path (figure 6, path 64 (a)) of the other network element (figure 6, network controller), and routing of the traffic streams to the other network element (figure 3, SVC Customer 26) is controlled by the other network element using the traffic stream controller (figure 3, SVC Customer 26 sends Connect ACK 511, col. 8, lines 62-67, the SVC service Controller 22 sends a connect signal to the edge switch 25 in step 512, and the edge switch 25 responds with a connect acknowledgement to the SVC service controller 22 in step 513);

wherein, for each network element (figure 3, SVC Customer 12, SVC Customer 26), control of routing of the traffic streams to the network element (Figure 3, SVC Customer 26) comprises setting up (figure 3, SETUP 51) a virtual connection (VC) for each traffic stream within an outgoing path (figure 3, SETUP 51) (figure 6, 62 (a), 62 (b), 62 (c)) carrying the traffic stream and the incoming path (figure 2, SETUP 59) (figure 6, 64 (a)) of the network element (figure 3, SVC Customer 26) : and wherein, setting up a VC for a traffic stream comprises tile following steps: the traffic stream controller (figure 3, SVC Controller 22) informs the network element (figure 3, the SVC Customer 26) that a traffic stream is to be sent to it from a source network element (figure 3, SVC Customer 12) (figure 3, SVC Customer 26 sends Connect ACK 511, col. 8, lines 62-67, the SVC

service Controller 22 sends a connect signal to the edge switch 25 in step 512, and the edge switch 25 responds with a connect acknowledgement to the SVC service controller 22 in step 513).

However, Cunetto ' 993 are silent to disclosing the network element chooses a VC identifier (VCI) for a VC l for the traffic stream; the network element communicates the chosen VCI to the traffic stream controller: the traffic stream controller communicates the chosen VCI to the source network element: and tile source network element assigns the traffic stream to a VC having the VCI.

Suzuki '621, from the same or similar fields of endeavor, disclose the network element (figure 4, interfaces 10-3) chooses a VC identifier (VCI) for a VC l for the traffic stream (col. 4, lines 55-60, when a VC setup is received, **a new VCI is assigned**. If **output port N=2 is selected**, a VCI value = 10 as indicated by the current M value =3 is assigned to the fast VC setup); the network element communicates (figure 4, the interfaces 10-3) the chosen VCI to the traffic stream controller (figure 3, the controller 13) : the traffic stream controller (figure 3, the controller 13) communicates the chosen VCI to the source network element (figure 3, interfaces 10-8, interface 10-2, interface 10-3, interface 10-1); and the source network element (the interface 10-3 assigns a new VCI) assigns the traffic stream to a VC having the VCI (col. 4, lines 55-60).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Suzuki '621 into the system of Cunetto ' 993, since Suzuki '621 recited the motivation in the col. 1, lines 8-11 which have made a fast connection setup technique for packet switched network wherein a self routing ATM

(asynchronous transfer mode) switching systems are used or an ATM-cell switched network.

Regarding claim 29, Cunetto ' 993 disclose in which the information received from the traffic stream controller comprises information concerning each of the traffic streams which the network element is to receive (figure 3, SVC Customer 26 sends Connect ACK 511, col. 8, lines 62-67, the SVC service Controller 22 sends a connect signal to the edge switch 25 in step 512, and the edge switch 25 responds with a connect acknowledgement to the SVC service controller 22 in step 513).

Regarding claim 38, Cunetto ' 993 disclose the limitations of claim 24 above.

However, Cunetto ' 993 are silent to disclosing setting up each VC comprises allocating a VC identifier.

Suzuki '621 disclose setting up each VC comprises allocating a VC identifier (col. 4, lines 55-60, when a VC setup is received, **a new VCI is assigned**. If **output port N=2 is selected**, a VCI value = 10 as indicated by the current M value =3 is assigned to the fast VC setup).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Suzuki '621 into the system of Cunetto ' 993, since Suzuki '621 recited the motivation in the col. 1, lines 8-11 which have made a fast connection setup technique for packet switched network wherein a self routing ATM

(asynchronous transfer mode) switching systems are used or an ATM-cell switched network.

Regarding claim 39, Cunetto ' 993 disclose the limitations of claim 24 above.

However, Cunetto ' 993 are silent to disclosing allocating a VCI to each VC comprises the network element choosing a VCI for each VC.

Suzuki '621 disclose allocating a VCI to each VC comprises the network element choosing a VCI for each VC (col. 4, lines 55-60, when a VC setup is received, **a new VCI is assigned**. If **output port N=2 is selected**, a VCI value = 10 as indicated by the current M value =3 is assigned to the fast VC setup).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Suzuki '621 into the system of Cunetto ' 993, since Suzuki '621 recited the motivation in the col. 1, lines 8-11 which have made a fast connection setup technique for packet switched network wherein a self routing ATM (asynchronous transfer mode) switching systems are used or an ATM-cell switched network.

Regarding claim 40, Cunetto ' 993 disclose the limitations of claim 24 above.
However, Cunetto ' 993 are silent to disclosing allocating a VCI to each VC comprises the network element communicating a chosen VCI to each of the network elements of the telecommunications network .

Suzuki '621 disclose allocating a VCI to each VC comprises the network element communicating a chosen VCI to each of the network elements of the telecommunications network (col. 4, lines 55-60, when a VC setup is received, **a new VCI is assigned**. If **output port N=2 is selected**, a VCI value = 10 as indicated by the current M value =3 is assigned to the fast VC setup).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Suzuki '621 into the system of Cunetto ' 993, since Suzuki '621 recited the motivation in the col. 1, lines 8-11 which have made a fast connection setup technique for packet switched network wherein a self routing ATM (asynchronous transfer mode) switching systems are used or an ATM-cell switched network.

Regarding claim 41, Cunetto ' 993 disclose the limitations of claim 24 above. However, Cunetto ' 993 are silent to disclosing in which communicating a chosen VCI is achieved via the traffic stream controller.

Suzuki '621 disclose communicating a chosen VCI is achieved via the traffic stream controller (col. 4, lines 55-60, when a VC setup is received, **a new VCI is assigned**. If **output port N=2 is selected**, a VCI value = 10 as indicated by the current M value =3 is assigned to the fast VC setup).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Suzuki '621 into the system of Cunetto ' 993, since Suzuki '621 recited the motivation in the col. 1, lines 8-11 which have made a fast

connection setup technique for packet switched network wherein a self routing ATM (asynchronous transfer mode) switching systems are used or an ATM-cell switched network.

Regarding claim 44, Cunetto ' 993 disclose in which the switching means comprises at least one switch of the telecommunications network (figure 3, edge switch 11, Core Switch 524, edge switch 25).

Regarding claim 45, Cunetto ' 993 disclose in which, for each network element, the outgoing paths carrying traffic streams for the network element are merged in at least one stage using at least one switch of the switching means (figure 6, merges UNI sig chan vp = I / vc = 5 from End Systems 1, 2, n).

6. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Cunetto ' 993 – Suzuki '621) in view of Puntambekar et al. (Patent No.: US 6,967,955 B1).

Regarding claim 25, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing each outgoing path comprises a permanent virtual path (PVP).

Puntambekar ‘955 disclose each outgoing path comprises a permanent virtual path (PVP) (see abstract, col. 4, lines 41 - 61, col. 7, lines 40, PVP).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Puntambekar ‘955 into the combined system (Cunetto ‘ 993 – Suzuki ‘621), since the Puntambekar ‘955 recited the motivation in the col. 3, lines 1-5 which the intermediate switches simply switch the cells from an incoming port to an outgoing port in accordance with the previous-established MPT path definition. The destination switch accumulates the cells, reconstructs the datagram, determines which output port the subnetwork containing the destination nodes is connected to, and sends the datagram over that port.

Regarding claim 26, the combined system (Cunetto ‘ 993 – Suzuki ‘621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ‘ 993 – Suzuki ‘621) are silent to disclosing which each incoming path comprises a permanent virtual path (PVP).

Puntambekar ‘955 disclose which each incoming path comprises a permanent virtual path (PVP) (see abstract, col. 4, lines 41 - 61, col. 7, lines 40, PVP).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Puntambekar ‘955 into the combined system (Cunetto ‘ 993 – Suzuki ‘621), since the Puntambekar ‘955 recited the motivation in the col. 3, lines 1-5 which the intermediate switches simply switch the cells from an incoming port to an outgoing port in accordance with the previous-established MPT path

definition. The destination switch accumulates the cells, reconstructs the datagram, determines which output port the subnetwork containing the destination nodes is connected to, and sends the datagram over that port.

7. Claims 32-36, 43, 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Cunetto ' 993 – Suzuki '621) in view of Fan et al. (Patent No.: US 6,324,165 B1).

Regarding claim 32, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing each network element checks that the aggregate ban d wi d th does not exceed the incoming path bandwidth of the network element .

Fan '165 disclose each network element checks that the aggregate ban d wi d th does not exceed the incoming path bandwidth of the network element (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan '165 into the combined system (Cunetto ' 993 – Suzuki '621), since the Fan '165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 33, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing each network element rejects at least one of the traffic streams which it is to receive, if the aggregate bandwidth exceeds the incoming path bandwidth.

Fan '165 disclose each network element rejects at least one of the traffic streams which it is to receive, if the aggregate bandwidth exceeds the incoming path bandwidth (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan '165 into the combined system (Cunetto ' 993 – Suzuki '621), since the Fan '165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 34, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing for each network element, the incoming path bandwidth is less than or equal to the bandwidth of an egress port of the switching means from which the incoming path comes.

Fan '165 disclose each network element, the incoming path bandwidth is less than or equal to the bandwidth of an egress port of the switching means from which the incoming path comes (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan '165 into the combined system (Cunetto ' 993

– Suzuki ‘621), since the Fan ‘165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 35, the combined system (Cunetto ‘ 993 – Suzuki ‘621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ‘ 993 – Suzuki ‘621) are silent to disclosing for each network element, each outgoing path has a bandwidth less than or equal to the bandwidth of the network element incoming path onto which the outgoing path is merged.

Fan ‘165 disclose for each network element, each outgoing path has a bandwidth less than or equal to the bandwidth of the network element incoming path onto which the outgoing path is merged (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan ‘165 into the combined system (Cunetto ‘ 993 – Suzuki ‘621), since the Fan ‘165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 36, Cunetto ‘ 993 disclose for each network element, control of routing of the traffic streams to the network element from each of the network elements comprises the network elements exchanging network element identities via the traffic stream controller (figure 3, SVC Customer 12) (figure 3, SVC Customer 26 sends

Connect ACK 511, col. 8, lines 62-67, the SVC service Controller 22 sends a connect signal to the edge switch 25 in step 512, and the edge switch 25 responds with a connect acknowledgement to the SVC service controller 22 in step 513).

Regarding claim 43, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing in which the telecommunications network routes constant bit rate (CBR) traffic streams.

Fan '165 disclose the telecommunications network routes constant bit rate (CBR) traffic streams (see abstract, CBR, col. 1, lines 52, CBR).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan '165 into the combined system (Cunetto ' 993 – Suzuki '621), since the Fan '165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 46, the combined system (Cunetto ' 993 – Suzuki '621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing in which, for each network element, control of routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element.

Fan ‘165 disclose in which, for each network element, control of routing of the traffic streams to the network element comprises control of usage of bandwidth of the incoming path of the network element (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan ‘165 into the combined system (Cunetto ‘ 993 – Suzuki ‘621), since the Fan ‘165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

Regarding claim 47, Cunetto ‘ 993 disclose in which each network element controls usage of the incoming path bandwidth (network resources) by using information received from the traffic stream controller (col. 5, lines 13, network resources = bandwidth).

Regarding claim 48, Cunetto ‘ 993 disclose in which the information received from the traffic stream controller comprises information concerning bandwidth of each of the traffic streams which the network element is to receive (col. 5, lines 13, network resources = bandwidth).

Regarding claim 49, the combined system (Cunetto ‘ 993 – Suzuki ‘621) disclose the limitations of claim 24 above.

However, the combined system (Cunetto ' 993 – Suzuki '621) are silent to disclosing in which each network element uses the information received from the traffic stream controller to calculate the aggregate bandwidth of any traffic streams being carried on the incoming path of the network element and each of the traffic streams which it is to receive.

Fan '165 disclose each network element uses the information received from the traffic stream controller to calculate the aggregate bandwidth of any traffic streams being carried on the incoming path of the network element and each of the traffic streams which it is to receive (see figure 4, M1 + M2 + …+ Mn < C, col. 10, lines 60-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Fan '165 into the combined system (Cunetto ' 993 – Suzuki '621), since the Fan '165 recited the motivation in the col. 3, lines 9-10 which is a need for a switch capable of supporting such diverse traffic.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sheikh Ayaz can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuong. T. Ho./
Examiner, Art Unit 2419
/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419